

Minnesota Department of Natural Resources

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August 21, 2009

Bill Storm, Project Manager
Minnesota Department of Commerce
85 7th Place East, Suite 500
St Paul, MN 55101-2198

RE: Xcel Energy Prairie Island Nuclear Generating Plant Proposed Uprate and Dry Cask Storage
Final Environmental Impact Statement
PUC Site Permit Docket Number: E002/GS-08-690

Dear Mr. Storm:

The Minnesota Department of Natural Resources (MDNR) has reviewed the Prairie Island Nuclear Generating Plant (PINGP) Final Environmental Impact Statement. We are providing comments in reference to EIS Chapter 1- Extended Power Uprate and Chapter 3- Comments and Responses.

The MDNR has previously reviewed and commented on the Draft Environmental Impact Statement (DEIS), the EIS Scoping document and Scoping EAW, and provided an additional letter of clarification on our scoping comment. We note that the Department of Commerce - Office of Energy Security has included or summarized some of this information within the combined final EIS/Site Permit Docket. Both components of this EIS document require specific information describing environmental impacts and the measures necessary to mitigate them, as well as other project related information. Our review of the Chapter 3 comments submitted for the DEIS indicated that a number of commenters were concerned about inadequate discussion of environmental impacts and mitigation. Those expressing that concern included members of the PUC authorized Advisory Task Force, the Prairie Island Study Group, the Prairie Island Indian Community, and the City of Red Wing.

It is our determination that the analysis and description of environmental impacts in Chapter 1 of the Final EIS is insufficient for a large power generating facility that has the potential for negatively affecting the aquatic biota and public use of the Upper Mississippi River. Thermal modeling studies for the river plume have not been summarized under the Human and Environmental Impacts section in the EIS. Chapter 3 (Comments and Responses) does include a response provided by Xcel to comments submitted by MPCA on the DEIS that references thermal modeling. This consists of some brief narrative and tables based on an Xcel thermal performance model for the period April through November. Xcel concluded that there will only be very slight incremental temperature increases in the river during this period, and that there will be no additional exceedances of permit limitations. We are not aware that this modeling has been provided as an exhibit during the environmental review stages of the uprate project. The result is that reviewers have to accept the conclusions of Xcel, and only if they were able to locate this information in the response document of the EIS.

In addition to identifying human and environmental impacts, the EIS must discuss measures to mitigate those impacts. We find that with the facility uprate and 10% increase in the temperature of the cooling water discharge during the winter period, there are no measures proposed to mitigate the additional thermal loading. The EIS merely states that the existing cooling towers can be used more frequently in the spring and fall and Xcel can de-rate the plant to avoid or minimize exceeding NPDES Permit temperature limitations. The latter



operational procedure would only apply to those extreme summer conditions that can occur briefly when there is a convergence of very high air temperature and humidity during a year of drought with low stream flow.

A principal concern for the Department of Natural Resources is the effect of the new thermal discharge regime on the ice cover conditions of Lake Pepin, and the fact that ice conditions are not regulated by or result from violations of the state water quality standards for temperature. The previously referenced thermal performance model did not include the December through March period. This is a period of open cycle operation with no cooling towers in use and, with the uprate, an additional 3 degrees Fahrenheit being discharged to the river. The EIS conveys a summary of our concerns on this issue, but responds with conclusions of the applicant that were based on historical data or studies that are clearly not representative of the upstream 6 miles of the lake which extends into the large embayment near Bay City, Wisconsin. MDNR had previously stated the upstream distance of lake as 5 miles for comment on the DEIS, but this was not considering the Wisconsin Channel and side chute at Catherine Pass. The data referenced by Xcel also does not represent the conditions associated with the thermal discharge of the extended power uprate. With implementation of the Lake Pepin TMDL, this is an extent of the lake that both MDNR and WDNR expect to be restored for aquatic vegetation and greatly improved fish and wildlife values. It is a management responsibility for both DNRs to provide safe access and winter recreational opportunities for this significant extent of the lake.

The ice conditions on the upper 6 miles of Lake Pepin have been impaired since 1983 when modification of the NPDES permit allowed discontinuation of cooling tower use during the winter. Popular fishing destinations downstream of this upper extent of lake, such as major points and bars, have also become hazardous locations. Lake Pepin ice conditions will be further degraded with the uprate unless a more balanced facility design is implemented. This will require partial winter cooling tower use to address the newly proposed increment of heat, and also to address a reasonable fraction of the additional thermal loading that has been characteristic of the discharge since 1983. This change in current operating procedures would need to be based on river and lake studies of temperature and ice conditions.

The Department of Natural Resources is formally requesting that the Public Utilities Commission, as part of the Site Permit, require that a thermal study be conducted to update historical studies conducted by the University of Minnesota- St. Anthony Falls Hydraulic Laboratory (1980&1987). The study would include thermal modeling and review of river temperature data, Landsat photos and past studies. Because ice conditions are not regulated by the NPDES Permit, this matter will need to be addressed by the PUC. We have referenced the need for this study in our comment for the DEIS (5/8/09) and in our clarification letter for scoping comments (2/20/09). We would appreciate the opportunity to consult with the interested parties in the development of the study, and will provide review and evaluation of results.

Thank you for the opportunity to provide comments on the Final EIS. Please contact me at (651) 259-5156 with any questions regarding this letter.

Sincerely,



Randall Doneen
Environmental Review Planning Director